



# Environmental Program Branch Summer Edition

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## EPB Trivia

What is the threshold for NPDES stormwater permitting of ground disturbance during construction?

Go to page 3 for the answer!

## Roadkill ROUND UP!!!!

During the launch of STS-114, the vehicle struck a vulture shortly after liftoff. Fortunately, there was no severe damage to the External Tank. However, that risk is unacceptable for launch. In an effort to reduce the risk associated with vultures, both for commuters and Space Shuttle launches, SGS Roads and Grounds has organized a "road kill posse" with support from the NASA Shuttle and Environmental Programs. This action is aimed at reducing the vulture population at KSC by reducing their food source. In this

effort, we need everyone's help, therefore if you see a dead animal on or beside the road, please contact the Duty Office at 853-



5211 and report the exact location of the animal. The SGS "posse" will be sent to quickly remove the carrion before the vultures are attracted to the free meal. Timely removal of road kill will help reduce the safety risk to commuter traffic, other animals attracted to the road kill, such as Bald Eagles, and ultimately to the Shuttle and its crew.

## Operation "Wash Out"

In preparation for STS-121 launch, the Roadkill Posse is implementing:

### Operation "WASH OUT"

Wildlife Automobile Strike Hazard (WASH) increases dramatically with speed. Lets keep in mind the posted speed limits along KSC roadways. Be especially careful during the early morning and late afternoon commutes when

wildlife movements are numerous. Lets avoid costly damage to your vehicles and help reduce the potential risk to Space Shuttle Discovery and her crew. Remember "Speed - Feeds". Lets reduce the roadkill. Don't forget, report roadkill sightings to 853-5211. Be prepared to give a location of the roadkill. The Posse will "grab it and bag it".

Shuttle safety and environmental protection are everyone's responsibilities. So call 853-5211.



**GO DISCOVERY!**

## Chief's Corner

### How come . . . . . ?

We in the environmental program are frequent targets of helpful employee suggestions which often boil down to the fundamental question, "Why don't we do more at KSC?" – More recycling, more energy conservation, more natural resource preservation, etc. All are reasonable questions, often accompanied by good suggestions. Unfortunately, they don't come with resources. Yes, that nasty reality that curtails our achievements and frustrates our innovative spirit. Environmental programs feel the budget

pinch (more like a vise grip) as do we all. Therefore, we target what funding we have carefully toward the greatest environmental and mission benefits. But we also foster innovative efforts such as green waste and concrete recycling, a recycling pilot for aluminum, centralized aerosol can crushing, and use state of the art cleanup tech-



nologies paired with reuse of soil/spoil material to name just a few. And let's not forget the latest and greatest – the road kill roundup to prevent vulture impacts at launch. As with any other NASA program, the KSC Environmental Program is not content with the status quo, no matter how good it may be. We do the best we can and when you stand back and look at our KSC environment, you realize that, with your help, we accomplish a lot.

## NASA KSC Environmental Management System (EMS) Awareness

### Aspects and Impacts:

All federal agencies are required to have an EMS in place to manage operational impacts to the environment. A critical step in the EMS process is identification of "aspects" and "impacts." An environmental aspect considers all activities, products and services related to environmental impacts. NASA KSC environmental aspects and impacts have been identified, evaluated and ranked in priority

order of overall risk. The aspects and impacts are fundamental to identifying targets and objectives in the KSC EMS Plan which help us manage the overall environmental risk at KSC from operations. You can learn more about the KSC EMS Plan and environmental



aspects and impacts here at KSC in [KSC-PLN-1912](#) or by visiting the KSC Environmental Management System through [Business World](#). Contact Hien Nguyen, EMS Program Manager at 867-8455 for additional information.

## LUT-1 Remediation

The Launch Umbilical Tower 1 (LUT-1) Storage Area Interim Measure (IM) began on May 22, 2006, and will end close to September 1, 2006. This area is located on D Ave. SE, between 4<sup>th</sup> Street, SE and 5<sup>th</sup> Street SE. The IM will mitigate human health risks associated with polychlorinated biphenyls (PCBs) and metals in soil. This cleanup was initiated after the discovery that the LUT-1 structures contained paint with high concentrations

of the above mentioned contaminants. The IM at LUT-1 will remove approximately 147,715 ft<sup>2</sup> of soil from 0-1 feet and approximately 83,415 ft<sup>2</sup> of soil from 1-2.5 feet (a total of approximately 10,105 cubic yards). This cleanup will not require any Land Use Controls following the cleanup.



## How YOU Can Help Save Energy at KSC!

- **Turn off** equipment, lighting, computer, fax machine, coffee machine, radio, and fan when not in use.
- **Turn off** monitor, lights, and appliances when you leave the room for meeting, lunch, etc. You can also use power management features to allow your computer to standby or shut off after a certain amount of time.
- **Minimize** printing and copying. Print and copy on both sides of paper. For 3 copies or less, use paper; for more, use copier. Inkjet printers consume 30 times less power than laser.
- **Consider** life-cycle cost effectiveness when designing and purchasing equipment. Cheaper up front might not be cheaper in the long run.
- Telecon, walk, or ride the shuttle bus
- Carpool and plan vehicle routes to minimize distance.
- Drive conservatively. Don't idle engine when parked.
- Use stairs instead of elevators whenever possible.
- Reduce/reuse/recycle, and buy/use recycled and recyclable products.



### Trivia Answer

1 Acre



## KSC, Protecting the Ozone Layer

To meet United States commitments under the Montreal Protocol treaty, the Clean Air Act Amendments of 1990 require the gradual phase out of production and consumption of ozone depleting substances (ODS). NASA has effectively replaced most uses of ODS, including many mission-critical applications. For all other ODS, the phase out of production in turn will phase out the consumption at KSC. Since the ODS phase-out began, NASA has reduced overall annual ODS usage from over 3.5 million pounds down to less than 150,000 pounds, which is a reduction of



greater than 96%. Some of the most commonly used ODS at KSC are Freon-113 used in precision cleaning, Halon-1301 used as a fire suppressant on the Orbiter and other hypergolic areas, and Freon-11, -12, -13, and -22 used for refrigeration and comfort cooling. The systems of some ODS like the ones used in comfort cooling will have to be replaced once the inventory is fully consumed. The ODS uses that will remain are associated with a small number of current mission-critical applications that rely on unique properties to meet stringent performance and safety requirements. Most ODS have been stock-piled to ensure the availability, but some ODS must be



purchased to meet the needs of the Space Shuttle Program. In cooperation with the EPA, exemptions have been established for continued purchase of fresh materials like HCFC-141b, which is a blowing agent used in mission-critical thermal protection systems (TPS) applied to the exterior of the Space Shuttle ET and the Orbiter's cryogenic propellant lines. KSC reports its annual usage in order to show continual improvement in reaching the phase-out goals of NASA as an agency.

If you have any more questions about ODS, please contact Dan Rembert at 867-8428.

## Dear EPB: Brush Along The Causeway

Dear EPB,

**Just curious as to what all those brush piles are along NASA Causeway West?**

Signed,

Curious George

Dear George,

Those brush piles are what is left of an EPB funded project to remove Brazilian pepper from along the Causeway. The original contract was to pull the pepper out. Then a new contract had to be written to mulch the debris. Similar to what was done on NASA Causeway East last year. It has just

take a bit longer to get the mulching contract than anticipated. Once completed, it will be the most spectacular view of the Center coming from the west along SR 405 in over 25 years! Thanks for your interest.

Sincerely, EPB